DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

H22NM
Revision 3
Arrow Falcon Exporters Inc.

OH-58A+
OH-58A
OH-58C

March 10, 1998

TYPE CERTIFICATE DATA SHEET NO. H22NM

This data sheet, which is part of Type Certificate No. H22NM, prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder — Arrow Falcon Exporters, Inc.
2081 South Wildcat Way
Porterville, Ca. 93257

I. Model OH-58A+ (Restricted Category Rotorcraft) approved September 25, 1996 (See NOTES Section)

Engine — Allison 250-C20C (T63-A720)

Fuel — ASTMD1655 JETB. See AF55-1520-228-10 for other approved fuels.

Engine Limits

	Torque Pressure (Percent)	Output r.p.m.	Exhaust Gas Temperature (°C)	Gas Gen Speed
Takeoff (5 Min.)	100%	100%	810	105%
Max. Cont	85%	100%	738	105%

See Flight Manual AF55-1520-228-10 for transient limits.

Rotor Limits

Power off	Power on
Maximum 390 RPM (Dual tach 110%)	Maximum 354 RPM (Dual tach reading) Rotor 100%
Minimum 330 RPM (Dual tach 93%)	Minimum 347 RPM (Dual tach reading) Rotor 98%

(See Flight Manual for transient limits.)

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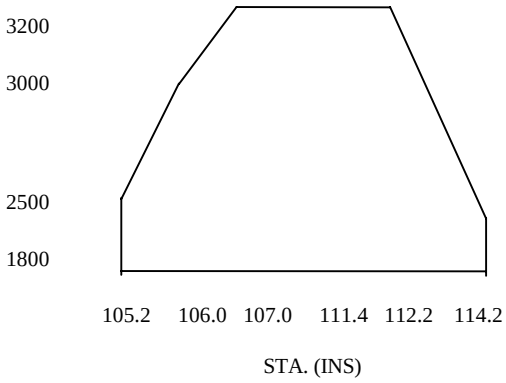
C. G. Range

A) Longitudinal C.G. Limits
(+107.0 To +111.4) at 3200 lbs.
(+106.0 To +112.2) at 3000 lbs.
(+105.2 To +114.2) at 2500 lbs.
(+105.2 To +114.2) at 1800 lbs.
Straight line variation between points given.
(See Chart)



B) Lateral C.G. Limits
2.6 inches Right
2.4 inches Left

Maximum Weight

3200 lbs.

II. Model OH-58A (Restricted Category Rotorcraft) Approved June 26, 1997 (See NOTES Section)

Engine

Allison 250-C10D (T63-A700)

Fuel

ASTMD1655 JETB. See AF55-1520-228-10 for other approved fuels.

Engine Limits

	Torque Pressure (psi)	Output r.p.m.	Exhaust Gas Temperature (°C)	Gas Gen Speed
Takeoff (5 Min.)	92	103%	749	104%
Max. Cont	79	103%	693	104%

See Flight Manual AF55-1520-228-10 for transient limits.

Note: Powerplant cooling has been demonstrated to be adequate for the following ambient temperature schedule: 125ºF at sea level and decreases by 3.6ºF per 1000 feet to the operating maximum altitude of 10,000 feet.

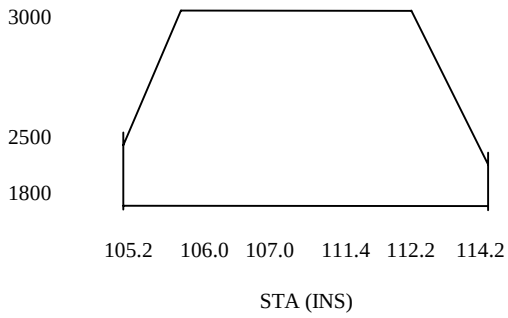
Rotor Limits

Power off	Power on
Maximum 390 RPM Minimum 330 RPM	Maximum 354 RPM Minimum 347 RPM

Avoid prolonged operation between 172 and 206 RPM
(See Flight Manual for transient limits.)

C. G. Range

A) Longitudinal C.G. Limits
(+106.0 To +112.2) at 3000 lbs.
(+105.2 To +114.2) at 2500 lbs.
(+105.2 To +114.2) at 1800 lbs.
Straight line variation between points given.
(See Chart)



Maximum Weight

3000 lbs.

III. Model OH-58C (Restricted Category Rotorcraft) Approved June 26, 1997 (See NOTES Section)

Engine

Allison 250-C20C (T63-A720)

Fuel

ASTMD1655 JETB. See AF55-1520-228-10 for other approved fuels.

Engine Limits

	Torque Pressure (Percent)	Output r.p.m.	Exhaust Gas Temperature (°C)	Gas Gen Speed
Takeoff (5 Min.)	100%	100%	810	105%
Max. Cont	85%	100%	738	105%

See Flight Manual AF55-1520-228-10 for transient limits.

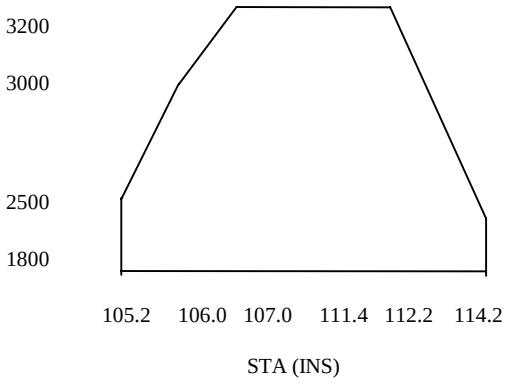
Rotor Limits

Power off	Power on
Maximum 390 RPM (Dual tach 110%)	Maximum 354 RPM (Dual tach reading) Rotor 100%
Minimum 330 RPM (Dual tach 93%)	Minimum 347 RPM (Dual tach reading) Rotor 98%

(See Flight Manual for transient limits.)

C. G. Range

A) Longitudinal C.G. Limits
(+107.0 To +111.4) at 3200 lbs.
(+106.0 To +112.2) at 3000 lbs.
(+105.2 To +114.2) at 2500 lbs.
(+105.2 To +114.2) at 1800 lbs.
Straight line variation between points given.
(See Chart)



B) Lateral C.G. Limits
2.6 inches Right
2.4 inches Left

Maximum Weight — 3200 lbs.

Data Pertinent To All Models

Airspeed Limits — Never exceed 138 MPH (120 Knots) CAS, Refer to AF55-1520-228-10 for additional information (AIRSPEED LIMITS).
Decrease V_{ne} 3 knots per 1,000 ft. above 3,000 ft.
100 kts recommended maximum for autorotation.

Minimum Crew — 1 at (+65.0)

Number of seats — 1 at +65.0 and 2 at +104.0.

Maximum Cargo — Total Maximum Cargo Weight of 950 pounds not exceeding 100 lbs. per sq. ft. between (+77) and (+114).

Fuel Capacity — 71.5 gallons (+116.0) 70.3 useable (See AF55-1520-228-10 for fuel operations limits).

Oil Capacity — 11.2 pints (+179.0)

Control Movements — For rigging information, refer to chapter 11 of the Aviation Unit and Intermediate Maintenance Manual TM55-1520-228-23-2.

Serial Nos. Eligible — Refer to Arrow Falcon Serial Numbers Eligible Report Number AF5145 dated July 10, 1996 or later FAA approved revision. A current copy is on file at the Los Angeles ACO.

Datum Leveling Means	Station 0 (datum is 1 inch forward of most forward point of fuselage cabin nose section or 55.16 inches forward of jack point center line). Leveling means is plumb line from ceiling left rear cabin to index plate on floor.
Certification Basis	FAR 21.25 (a) (2) effective February 1, 1965, including Amendments 21-1 through 21-42. Type Certificate No. H22NM for the Special Purpose(s) of: 1) Agricultural Operations under FAR 21.25(b)(1). Note: In accordance with FAR 36.1(a)(4), compliance with the noise requirements was not shown. Therefore, aircraft certificated under this type certificate are only eligible for agricultural operations excepted by FAR 36.1(a)(4) and defined under FAR 137.3. 2) Forest and Wildlife Conservation Operations under FAR 21.25(b)(2) Note: In accordance with FAR 36.1(a)(4), compliance with the noise requirements was not shown. Therefore, aircraft certificated under this type certificate are only eligible for dispensing fire fighting materials excepted by FAR 36.1(a)(4) and defined under FAR 137.3. 3) External Load Operation under FAR 21.25(b)(7). Note: In accordance with FAR 36.1(a)(4), compliance with the noise requirements was not shown. Therefore, aircraft certificated under this type certificate are only eligible for external loads operations excepted by FAR 36.1(a)(4) and defined under FAR 133.1(b). General Note: Any alteration to the aircraft for Special Purposes not identified above require further FAA approval and in addition may require noise and/or flight testing. Date of application: November 6, 1995
Production Basis	None. Prior to original certification of each aircraft an FAA representative must perform a detailed inspection for workmanship, materials, and conformity with the approved technical data following a check, by the type certificate holder, of the flight characteristics in accordance with all applicable portions of Sections II and V of U.S. Army Technical Manual 55-1520-228-MTF Maintenance Test Flight Manual, dated November 1, 1988, as appropriate for each aircraft, or other FAA approved manual.
Notes	
Note 1.	A current weight and balance report including list of equipment included in the certificated empty weight, and loading instructions when necessary, must be provided for each aircraft at the time of original certification. Refer to Flight Manual AF55-1520-228-10 or Aviation Unit and Intermediate Maintenance Manual, TM55-1520-228-23-2 for C.G. determination.

Note 2. The following placards must be prominently displayed in the cockpit in full view of the pilots:

Placard No. 1

"THIS ROTORCRAFT MUST BE OPERATED IN ACCORDANCE WITH THE RESTRICTED CATEGORY OPERATING LIMITATIONS OF FAR 91.313."

Placard No. 2

"THIS HELICOPTER MUST BE OPERATED IN COMPLIANCE WITH THE OPERATING LIMITATIONS SPECIFIED IN THE APPROVED ROTORCRAFT FLIGHT MANUAL. REFER TO AF 55-1520-228-10 FOR OPERATING LIMITS AND RESTRICTIONS."

Placard No. 3

'VFR OPERATIONS ONLY'

Note 3. The helicopter(s) must be serviced, maintained, and inspected in accordance with the documents specified in Arrow Falcon Exporters, Inc. Instructions for Continued Airworthiness Report, AF5132, dated July 5, 1996, as revised or inspected in accordance with other FAA accepted inspection programs. The TC Holder's Instructions for Continued Airworthiness Report is part of the TC Holder's Instructions for Continued Airworthiness.

Note 4. Prior to obtaining an original Airworthiness Certificate:

A Each helicopter must pass a conformity inspection in accordance with Arrow Falcon Exporters, Inc. Configuration Report, AF5146, dated July 10, 1996 or later revision. The Configuration Report must contain a complete description of each helicopter, any military Maintenance Work Orders accomplished on that particular helicopter, and a description of the Special Purpose modification(s) accomplished on that particular helicopter. In addition, each helicopter must pass an inspection for any possible hidden damage and the military records reviewed for acceptability of any repairs or alterations.

B. The maintenance, overhaul, and modification records of each helicopter must be reviewed for military changes that may affect the airworthiness of the helicopter.

C. After the required inspections, the aircraft must be found to be in a good state of preservation, repair, and in a condition for safe operation.

Note 5. This aircraft is prohibited from carrying cargo for compensation or hire. Carriage of cargo is limited to such cargo that is incidental to the aircraft's owner/operator's business which is other than air transportation. (This note applies to aircraft that have the special purpose, "Carriage of cargo.")

Note 6. Restricted Category aircraft may not be operated in a foreign country without the express written approval of that country.

Note 7. This aircraft has not been shown to meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention on International Civil Aviation.

Note 8. Engine changes are allowed provided the replacement engine is of the same make and model as identified in this TCDS. The replacement engine must have proper military records and have the applicable FAA Airworthiness inspection accomplished.

Note 9. The Airworthiness directives for the helicopter and engine contained in Arrow Falcon Exporters, Inc. Airworthiness Directives Report, AF5121 (OH-58A+, OH-58A, and OH-58C) and AF5123 (Engine), dated June 10, 1996, or later FAA Approved revision, must be complied with prior to original airworthiness certification.

Note 10. An acceptable method of determining engine cycles from engine total operating time is contained in ARROW FALCON Report No. AF5130 dated July 24, 1996, or later FAA Approved revision. This may be used when converting military operating hours to commercial equivalent cycles at the time of initial airworthiness conformity.

Note 11. When equipment identified in Arrow Falcon Exporters Inc. Removed Equipment Report Number AF5144 dated July 29, 1996, or later FAA Approved revision, is removed, the helicopter center gravity (CG) will be beyond aft limitations. The pilot shall refer to Arrow Falcon AF55-1520-228-10, Flight Manual, to determine the amount of ballast to be installed at Sta. 22.2 in order to return the Center of Gravity to specified parameters.

Note 12. OH-58A+, OH-58A, and OH-58C helicopters shall have additional systems installed as follows:

Description	Report No.
Battery Temperature Monitor	AF5138
Flight Hour Recording Meter Installation	AF5133
Ballast Weight Installation	AF5134

Note 13. Flight Manual - Model OH-58A+ helicopters having complied with MWO 1520-228-50-6 which installs the T63-A720 engine must be operated in accordance with the operating limitations in the Flight Manual AF55-1520-228-10 dated January 17, 1997, or later FAA Approved revisions.

Note 14. Any alteration to the type design of this aircraft may require Instructions for Continued Airworthiness. These instructions must be submitted and accepted by the FTW-AEG, Aircraft Evaluation Group Office, prior to approval for return to service.

END